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**From:** CN=Palmer Hough/OU=DC/O=USEPA/C=US  
**Sent:** Mon 8/20/2012 6:15:33 PM  
**Subject:** Re: Fw: FYI - copper concentrate pipeline spill in Peru - July 25th - news article  
[International News](#)  
[Chem. Insider Daily](#)  
[South America](#)  
[Individual Safety](#)  
[Facility Safety](#)  
[Safety](#)  
(embedded image)

Sheila:

This is very disturbing, thanks for sharing. I'm surprised that no one mentioned this during the recent public testimony since it happened on July 25.

-Palmer

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Date: 08/20/2012 01:19 PM  
Subject: Fw: FYI - copper concentrate pipeline spill in Peru - July 25th - news article

I'm not sure who will be following up on pipeline failures, but this is worth a look as a case study....

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Sheila M Eckman

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----- Forwarded by Sheila Eckman/R10/USEPA/US on 08/20/2012 10:16 AM -----

From: Bruce Woods/R10/USEPA/US  
To: Sheila Eckman/R10/USEPA/US@EPA  
Date: 08/17/2012 09:34 AM  
Subject: FYI - copper concentrate pipeline spill in Peru - July 25th - news article

Sheila,

Just FYI,

I don't know if you have seen this article about the copper concentrate pipeline rupture a few weeks ago in Peru. I saw this in the ChemInfo daily electronic updates today

#### Townsfolk Sickened after Toxic Spill

Featured In:  
International News  
Chem. Insider Daily  
South America  
Individual Safety  
Facility Safety  
Safety

By FRANK BAJAK & FRANKLIN BRICENO, Associated Press Friday, August 17, 2012

SANTA ROSA DE CAJACAY, Peru (AP) — It began with a loud pop like a tire bursting. A toxic cocktail of copper concentrate laced with a periodic-table's mix of volatile compounds then shot skyward.

The pipeline that carries slurry at high pressure from Peru's most productive mine 188 miles (302 kilometers) to its desert coast had sprung a leak at a pumping station in this village of poor farmers. It was 9:15 a.m.

Abraham Balabarca, who was building a house nearby, ran to the station with others to try and halt the flow. But the door was chained and bolted. The security guard had no key. By the time someone pried open the lock with a crowbar, the town was shrouded in a toxic cloud.

In the next days, about 350 villagers would be treated for headaches, respiratory tract bleeding, nausea and vomiting, according to the mayor's office. At least 69 were children.

Three weeks after the leak spilled 45 tons of slurry into the town of Cajacay, spreading toxic dust that left 42 people hospitalized for up to 11 days, the copper mine's owner, Antamina, has said little about the accident, and been silent about the slurry's chemistry.

Environmental protection has traditionally been lax in Peru, where mining has been the engine of a decade of average 7 percent annual growth that has made the Andean nation a darling of investors. But an anti-mining backlash has been growing in the country. In the past three months, eight Peruvian civilians have been killed in anti-mining protests that have dominated the country's political agenda, prompting the resignation of two prime ministers.

Immediately after the July 25 spill, many in this community of 410 pitched in at the request of Antamina's director of community relations to help stop the slurry from reaching a nearby river. They isolated the mucky mixture using absorbent cloth provided by Antamina, using no protective gear, or masks or gloves. Balabarca said it stank like a common insecticide.

"Everyone helped and got their hands dirty," said community president Hilario Moran, "without knowing the concentrate was contaminated."

Nancy Damian, who is seven months pregnant, sat on the stoop of her adobe home overlooking the pumping station more than a week after the spill. She said she had spent four days in the hospital, fainting and vomiting constantly.

"My head still hurts and at night my stomach tightens and it feels like the baby is going to come," she said.

Her twin 7-month-old nephews and 17-month-old son, Tony, were also still sick to their stomachs. Tony, she said, has lost 3 pounds (1.4 kilograms) since the spill and now weighs 25 1/2 pounds (11.5 kilograms).

"He's sleeping all the time and when he wakes up he starts acting up, biting like a dog," said Damian.

The family's dog, Chocolate, was found dead on August 5 a few yards (meters) from the pipeline, beneath a stand of eucalyptus trees.

A neighbor, 9-year-old Yasira Sotelo, was among those hospitalized at the private San Pablo hospital in the regional capital of Huaraz. She described splitting headaches and a nose bleed that wouldn't stop.

"The nurses pressed cloth into my nostrils and asked me, 'Is blood going into your throat?' I said, 'Yes,' and they applied more and more cloth."

U.S. environmental toxicologist Greg Moller of the University of Idaho said the children likely suffered chemical burns in their lungs as sulfides in the inhaled mineral dust reacted with mucous membranes to produce sulfuric acid.

He said respiratory tract trauma is worse for children because they take two to three breaths for every adult breath.

Dr. Juan Villena, dean of Peru's College of Physicians, visited the scene and told RPP radio that scores of children in the town had been treated, some with "serious muscular and respiratory problems, bleeding from the nose."

But Health Minister Midori de Habich said Saturday in a radio interview that no one had been badly sickened at Cajacay.

"There have been no serious cases," she said. "We are looking at the community to see if there's any matter for concern but happily there have been no regrettable cases."

Habich also said the Fortaleza river that Cajacay's residents depend on was not contaminated.

Most villagers are subsistence farmers who grow lima beans and raise sheep. About two in five children in the highlands region suffer from malnutrition and anemia. The town has no running water or sewage system.

People treated at the San Pablo hospital said they requested but were denied results of their blood tests or any other documentation that would attest to their hospitalization, which Antamina paid. Hospital director Raul Guisse refused to discuss the cases with The Associated Press.

Last week, nearly the entire village packed into a green cement building on Cajacay's main square for a nearly four-hour meeting with five Antamina executives, who arrived in late-model SUVs along with their bodyguards.

The company's executive president, Abraham Chahuan, sitting on a white plastic chair in jeans and purple sweater, spoke little as the villagers unleashed a barrage of questions.

He and Ricardo Morel, a vice president, referred to the spill as "the incident." Morel took constant notes. They said they were open to compensating people with health damages but that would depend on "technical and medical reports" that Morel said would be complete by Sept. 22. He did not say who was doing the studies.

"In the name of the company I want to thank you for the community's active assistance during the events of last week," Chahuan said. "I only want to say that accidents occur everywhere in our daily life."

Villagers also demanded an explanation for why they have not seen the promised \$10 million reservoir to provide the town with water that the company promised in 2000 as a condition of laying the pipeline.

Morel said Antamina would consult with national and regional officials.

Antamina is the world's third-largest zinc and eighth-largest copper mine, according to Xstrata, which along with BHP Billiton, the world's largest mining company, holds a 33.75 percent stake. It produced 334,000 tons of copper last year and 235,000 tons of zinc. Independent economist Epifanio Baca of the DESCO think tank said it earned more than \$1.5 billion. Consortium partners BHP Billiton Ltd. is based in Australia, Xstrata in Switzerland, Teck-Cominco Ltd. in Canada and Mitsubishi Corp. in Japan.

Environment Minister Manuel Pulgar had demanded the company be made to pay the maximum fine permitted under law, or \$13.7 million, for negligence. His deputy, Mariano Castro, told The Associated Press his agency's investigation is not over. He declined to say whether more serious sanctions could be

ordered. A 2009 law permits egregious violators to be suspended or even shut down. Antamina has not yet explained what caused the leak or why it took two hours to halt the slurry flow. Company officials did not respond to repeated telephone and emailed requests for comment, and refused to talk to reporters at the town meeting.

An Antamina document obtained by the La Republica newspaper describes some of slurry's ingredients as "highly toxic" and says they include lead and arsenic, which are poisons. Castro said a government analysis of the slurry could be ready as early as next week.

The government occupational health agency, CENSOPAS, took blood and urine samples from 52 villagers a week after the spill and six of the 18 children tested had unacceptably high levels of copper while one had dangerously high levels of lead. The U.S. Agency for Toxic Substances and Disease Registry says children are especially susceptible to damage from high levels of copper, which can cause liver damage but has not been shown to be carcinogenic.

CENSOPAS only tested for copper, lead and arsenic. And it did not name the villagers tested. Mayor Felipe Lazaro, who provided the AP with the report, said he asked CENSOPAS for their identities but the agency refused.

Anti-mining activists say such behavior is typical.

"Many times what we've seen in the past, unfortunately, is the results of this kind of investigation get lost," said Reinhard Seifert, a longtime opponent of the Yanachocha gold-mining consortium in neighboring Cajamarca state.

Peru's government recently recorded 169 active social conflicts, most of them mining-related. Protests against Yanacocha's \$5 billion Conga project in Cajamarca state have twice led national authorities to impose states of emergency that suspended civil liberties.

In the highlands town of Espinar, farmers have mounted protests saying contaminated runoff from a copper mine owned by Xstrate is killing their llamas, sheep and vicunas — an allegation the company denies.

Espinar Mayor Oscar Mollohuanca was jailed for 15 days after a protest in which police fired on demonstrators and at least two people died.

"In this country it's the mining companies who govern," he said. "At their service they have the president, the police and the bullets."

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